READING THE METER

A look inside a cleaner, safer, smarter auto industry.

ALLIANCE FOR AUTOMOTIVE INNOVATION

Contents – September 7, 2023

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Forecast Meter

Sales & Production Summary and Forecast (Updated 9/7)

2022-2023 Sales,[1] Extended Sales Forecast[2] and Production Forecasts[3]		
	U.S. Sales & Forecasts	**North American Production**
January '22	991,156 (-10% YoY)	1,111,390 (-4% YoY)
February '22	1,052,524 (-11.8% YoY)	1,112,429 (-1% YoY)
March '22	1,246,336 (-22% YoY)	1,350,102 (-.1% YoY)
April '22	1,226,950 (-22% YoY)	1,177,851 (+8% YoY)
May '22	1,104,993 (-23.8% YoY)	1,215,000 (+20.4% YoY)
June '22	1,126,724 (-16.8% YoY)	1,259,515 (+13.8% YoY)
July '22	1,129,371 (-8.4% YoY)	977,485 (+7% YoY)
August '22	1,128,200 (-.7% YoY)	1,413,262 (+29 %)
September '22	1,112,245 (+3.9% YoY)	1,258,501 (+38% YoY)
October '22	1,151,774 (+13.8% YoY)	1,299,707 (+12.4% YoY)
November '22	1,120,067 (+6% YoY)	1,200,244 (+5.5% YoY)
December '22	1,263,268 (+4.9% YoY)	1,074,938 (+3.4% YoY)
January '23	1,033,002 (+4.2% YoY)	1,195,548 (+12.9% YoY)
February '23	1,136,332 (+8.7% YoY)	1,257,482 (+15% YoY)
March '23	1,365,966 (+8.6% YoY)	1,442,991 (+6.7% YoY)
April '23	1,347,159 (+13.1% YoY)	1,281,626 (+8.6% YoY)
May '23	1,362,019 (+18.0% YoY)	1,462,273 (+25.5% YoY)
June '23	1,370,976 (+19.9% YoY)	1,387,090 (+13.8% YoY)
July '23	1,299,199 (+19.9% YoY)	1,173,342 (+15.6 YoY)
August '23	1,328,526 (+12.8% YoY)	
2022 Full Year	15.4 million units (WardsIntelligence)	14,721,053 (+9.8% YoY) (U.S. 10,019,791)

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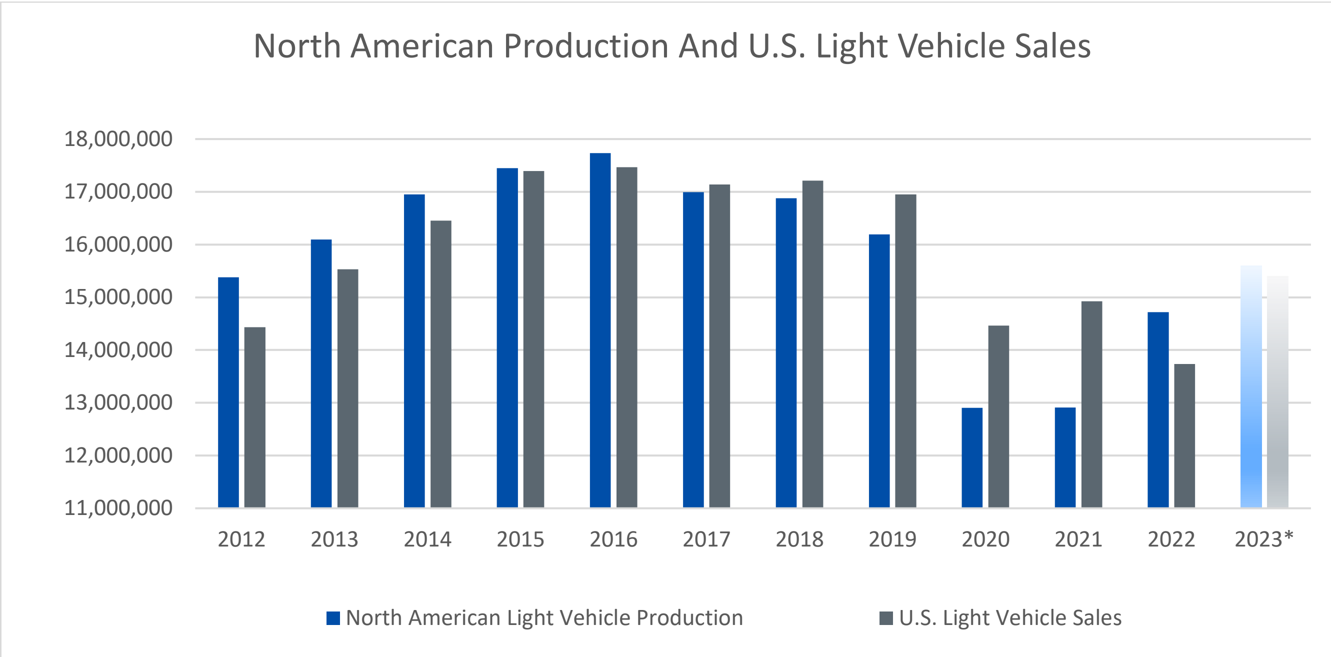
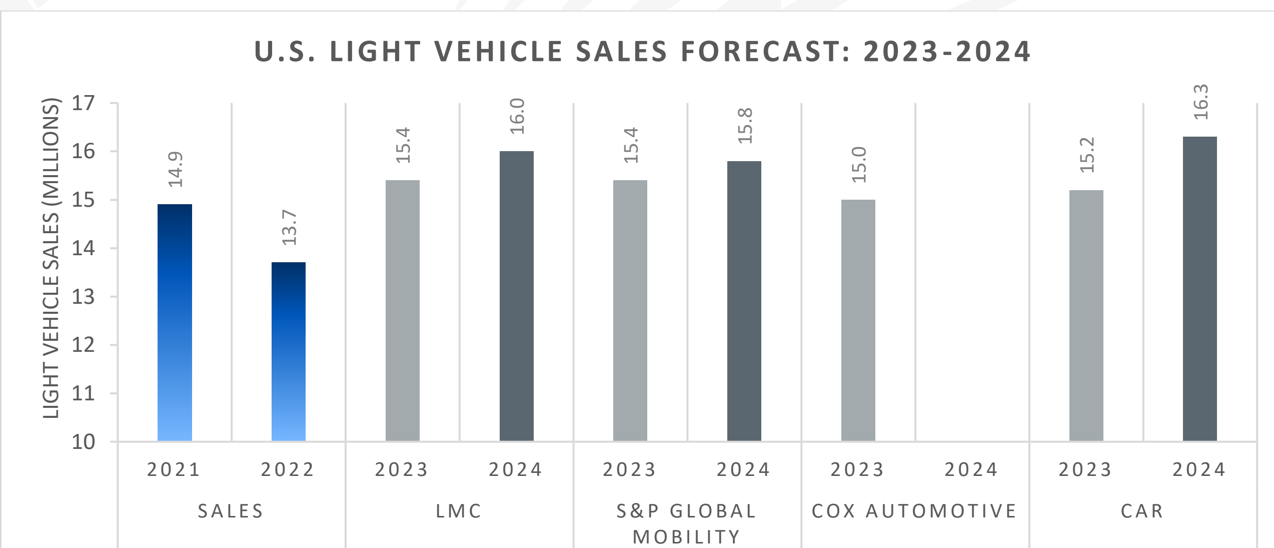


U.S. Light Vehicle Sales Outlook (Updated 9/7)

Wards Intelligence Outlook (9/7)[4]: "The initial look at sales in September calls for a seasonally adjusted annual rate of 15.5 million units, up from August's 15.0 million. Including the September forecast, Q3 will end at 15.4 million units, down from Q2's 15.6 million but above year-ago's 13.4 million. Third-quarter volume is tracking to 3.95 million units, 16.6% above Q3-2022's 3.39 million.

"Wards Intelligence partner GlobalData expects enitre-2023 to end at 15.4 million units, with 2024 pegged at 16.0 million. The 2023 forecast is 11.7% above 2022's 13.8 million and highest since 17.0 million in 2019.



North American Production & Inventory Outlook (Updated 9/7)

Wards Intelligence Inventory Outlook (9/7) [5]**:** ""Inventory is expected to rise to 1.97 million units at the end of September, with sequential gains continuing through November, ending with a typical seasonal decline in December. Dec. 31 inventory is pegged at 2.22 million units, up 32.8% from like-2022's 1.67 million, and highest for the month since 2020's 2.75 million.

"However, those outlooks assume no strike by the national automotive unions in Canada and the U.S. The rhetoric from the UAW in the U.S. and Unifor and Canada indicates strong likelihood of some kind of production stoppages as soon as this month.

"Lengthy plant shutdowns at Ford, General Motors or Stellantis, or any combination of them, could be a big damper on the inventory outlook in the U.S."

Wards Intelligence Production Outlook (8/24) [6]**:** "With a strong possibility there will be some production losses in September from labor strikes in the U.S. or Canada, or both, North America production in Q3 is tracking higher for the period than a month ago.

"Furthermore, August is tracking to become the first month since December 2020 to record an increase from its total in 2019, the last year before the pandemic and resulting supply-chain disruptions overwhelmed the North American production landscape.

"Excluding the possibility of strike-related shutdowns, production of light vehicles and medium-/heavy-duty trucks in Q3 is tracking to 4.11 million units, 8.5% above like-2022. The outlook is 47,200 units above month-ago's expectations for July-September.

"The Q3 outlook includes small increases of 8,300 units to August, which is forecast to rise 6.4% year-over-year to 1.55 million, and 10,000 units to September, which is expected to total 1.38 million, up 5.4%. However, Q3 also includes an overbuild from expectations in July of 28,900 units, as the month totaled 1.17 million, up 15.6%.

August's projected total of 1.55 million units would make it the first month since December 2020 – just before the chip shortages began to cause production shortfalls in early 2021 – to rise from its pre-pandemic total in 2019. August's expected total is 1.7% above like-2019 and September's projection is 1.0% above its pre-pandemic sum.

"Third-quarter light-vehicle production is pegged at 3.96 million units, 8.9% above like-2022 but 0.4% Q3-2019's 3.98 million."

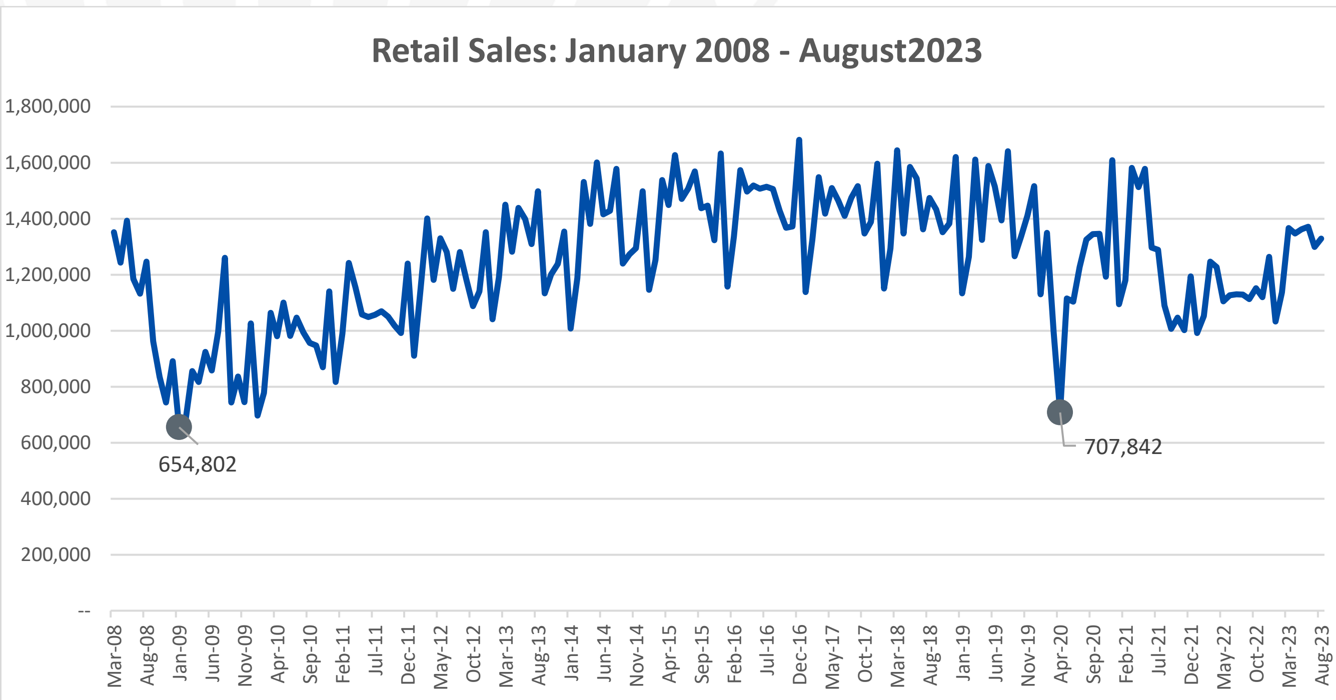
S&P Global Mobility Outlook (8/24) [7]**:** "The outlook for North America light vehicle production was reduced by 8,000 units and increased by 6,000 units for 2023 and 2024, respectively (and reduced by 2,000 units for 2025). The greatest threat to the forecast in the near-term surrounds the union negotiations between the United Auto Workers (UAW) in the US and Unifor in Canada with their respective contracts set to expire in mid-September 2023. Hard line stances from union leadership along with strong demands create a high likelihood that a strike will occur. Minimum estimates are for two weeks of a select manufacturer, GM, Ford or Stellantis, with the potential for it to be drawn out to as long as 10 weeks with scenarios ranging from 100,000 to as much as 600,000 units or more of lost output. While the latest forecast does not include a strike scenario, there is in effect a built-in hedge totaling around 545,000 units since the Detroit-based manufacturers have strong inventories. If a strike is averted, then as forecast, GM, Ford and Stellantis would likely need to curb output plans. Over the forecast horizon, the outlook remains somewhat muted given expectations for an industry inventory profile that continues to focus on quality volume at the expense of costly volume behaviors. This new normal is based on continued commitments bolstering transaction prices and supported by manufacturer plans to grow build-to-order programs, especially for new BEV entrants."

Market Meter

U.S. Light Vehicle Sales (Updated 9/7)

Monthly Sales (Updated 9/7)

This chart helps to put into context the monthly retail sales due to the COVID pandemic and showing the relative drop in sales compared to the 2008 financial crisis.



August Sales (Updated 9/7)

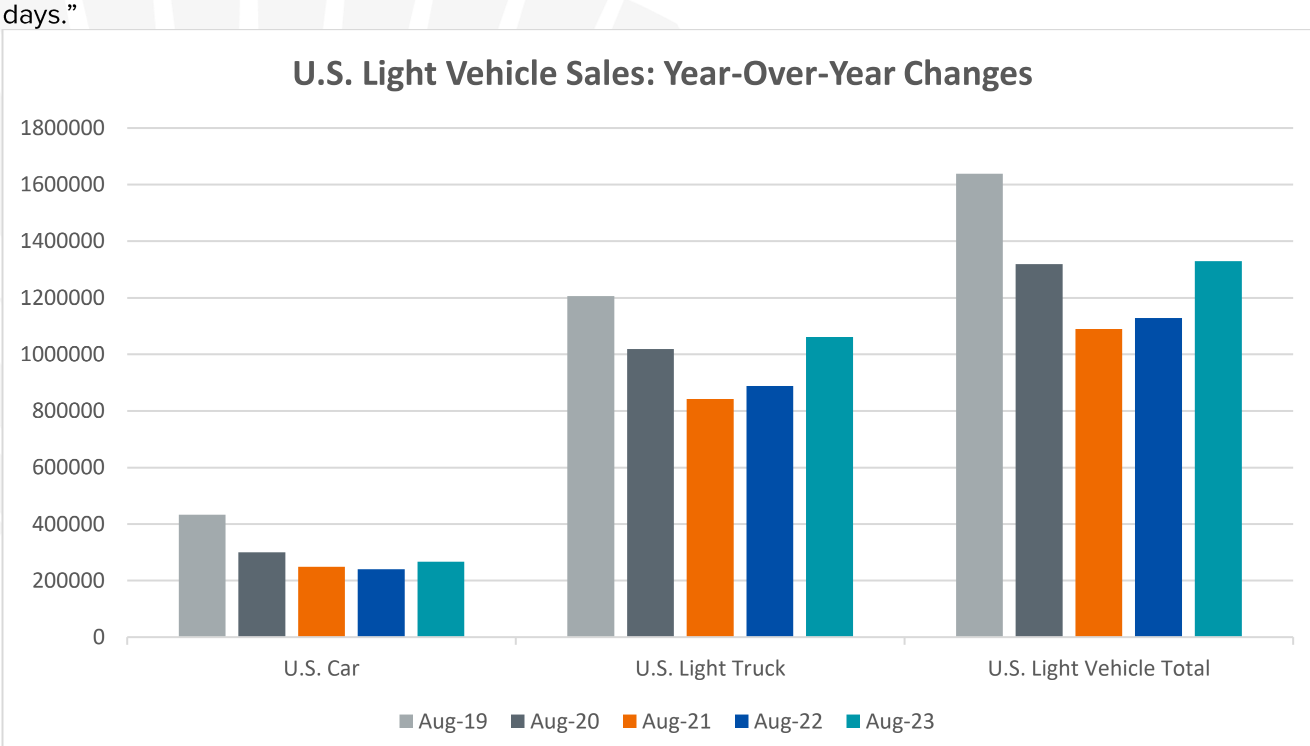
WardsIntelligence[8]: "U.S. light-vehicle sales apparently petered out at the end of August and the month's final results finished below expectations.

"August sales equated to a 15.0 million-unit seasonally adjusted annual rate, down from the forecast of 15.3 million, July's 15.7 million and lowest since 14.9 million in March. It was well above like-2022's 13.2 million and the highest for the month in three years.

"Consumers could be pushing back more on the strong mix of higher-priced vehicles in the still historically low level of inventory that is available and exacerbated by higher interest rates causing higher monthly payments on financed purchases. Although inventory has been rising over the past year, and incentives are beginning to creep up – though also still at historic lows – the lack of vehicles on dealer lots continues to create an environment where pricing power remains more with the seller than the buyer.

"Potential buyers could also be waiting to see if automakers or dealers offer up some additional price discounting as was often the pattern in the summer months in most years prior to the pandemic's start in 2020.

"Deliveries in August totaled 1.329 million units, up 17.1% from same-month 2022's 1.134 million. The daily selling rate of 49,205 over the month's 27 selling days was 12.8% above August 2022's 43,626 – 26 selling days."



Segments vs. Gas Prices (Updated 9/7)

Monthly Sales For August: Light trucks accounted for 79.9 percent of sales in August, nearly flat with the market share a year ago. Compared to the same period in 2022, sales of cars are up about 27,000, and down more than 166,000 from August 2019, when cars comprised 26% of the market as opposed to the 20.1 percent of the market passenger cars have now.

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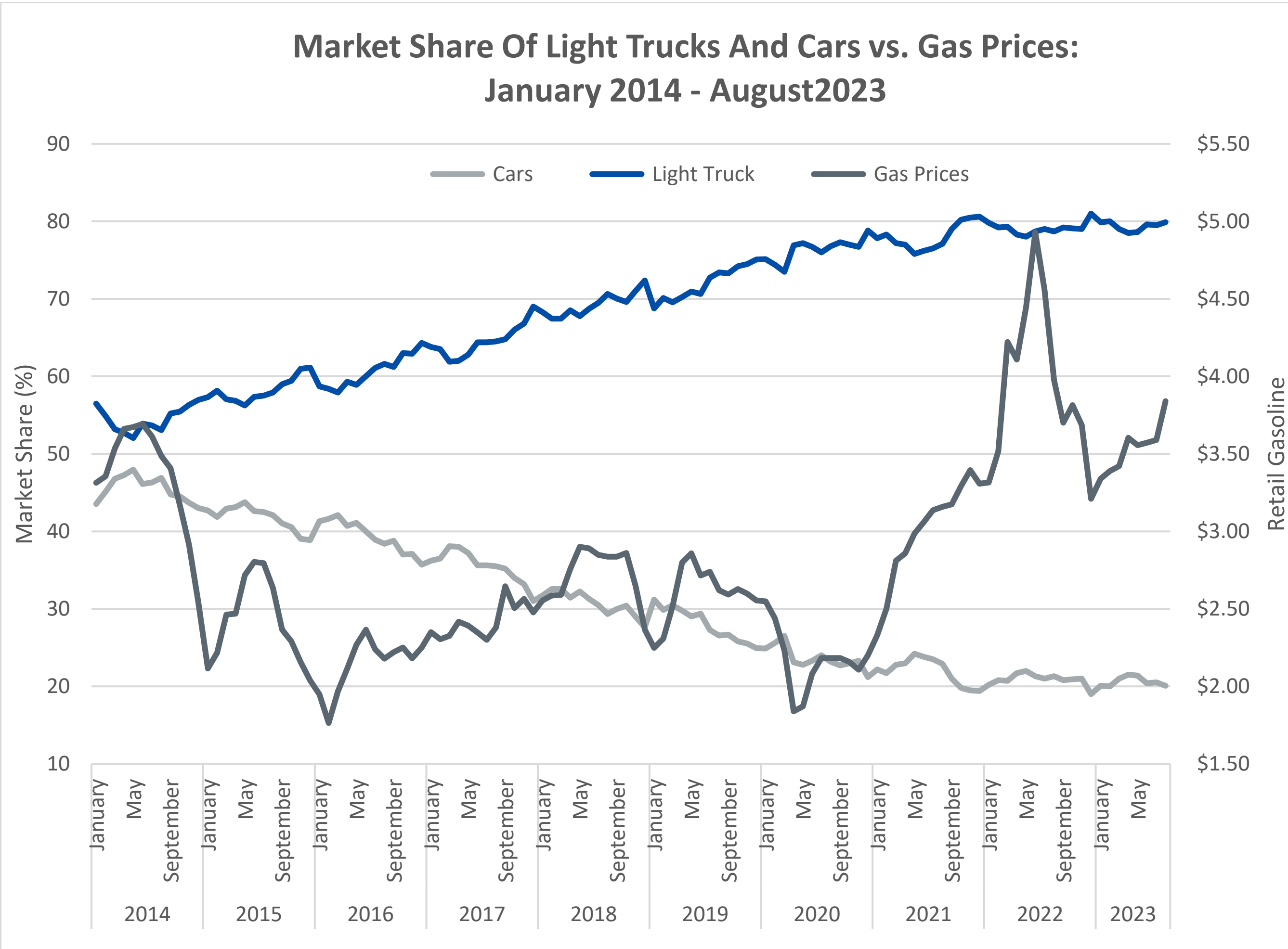
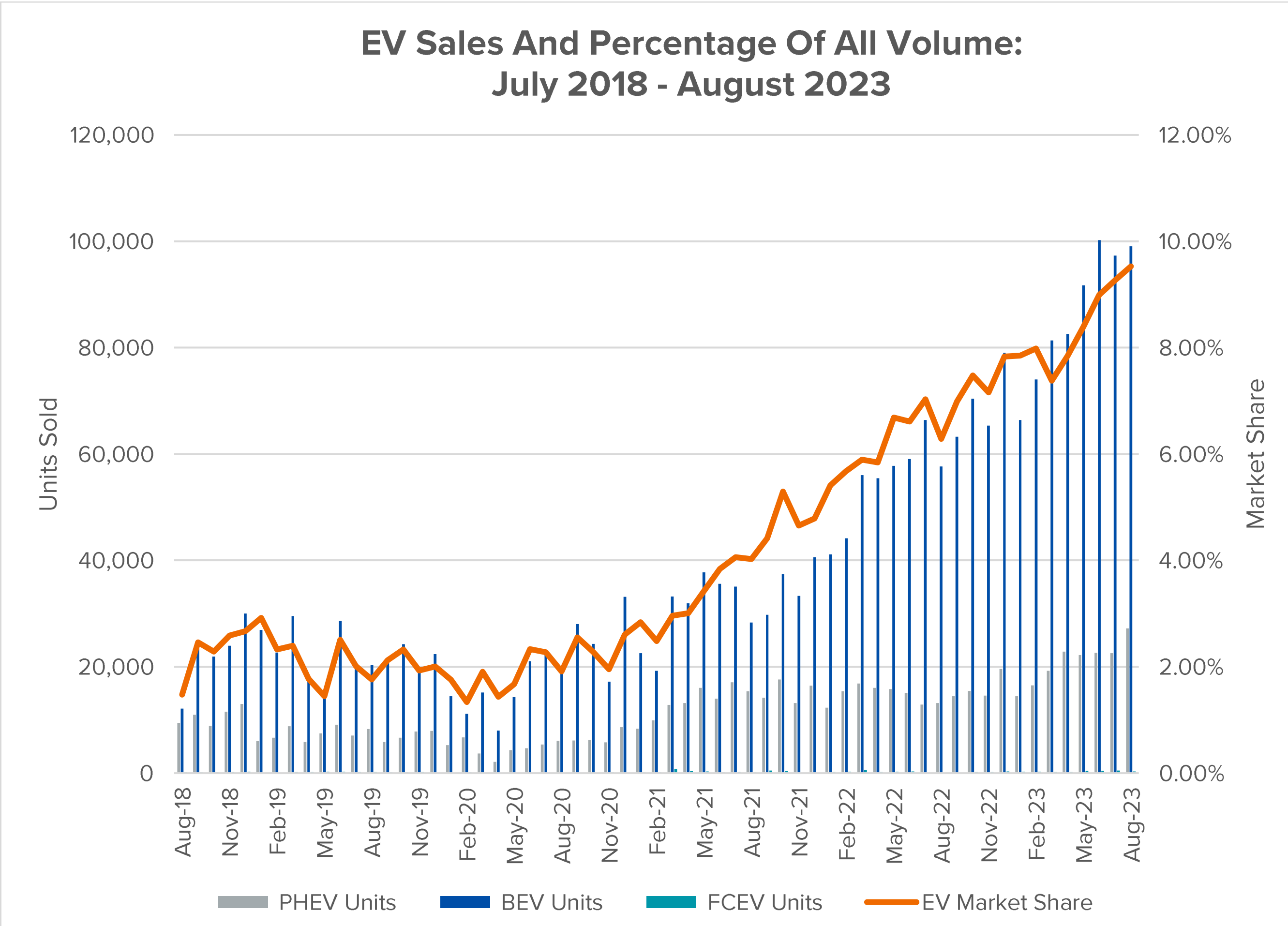
Historic Perspective: The upward trend in the popularity of light trucks over cars has been steady since 2013, when only 2% of annual market share separated the two segments.[9] and gas was over $3.00.[10] a gallon. As fuel prices dropped below the $3.00 mark in mid-September 2014, light truck sales began to take off. Gas prices since have averaged only $2.83 a gallon (through December 2022) and when combined with increased fuel economy for light trucks, an increase of 4 mpg since 2013, the perfect conditions existed to continue fueling light truck market growth.[11]



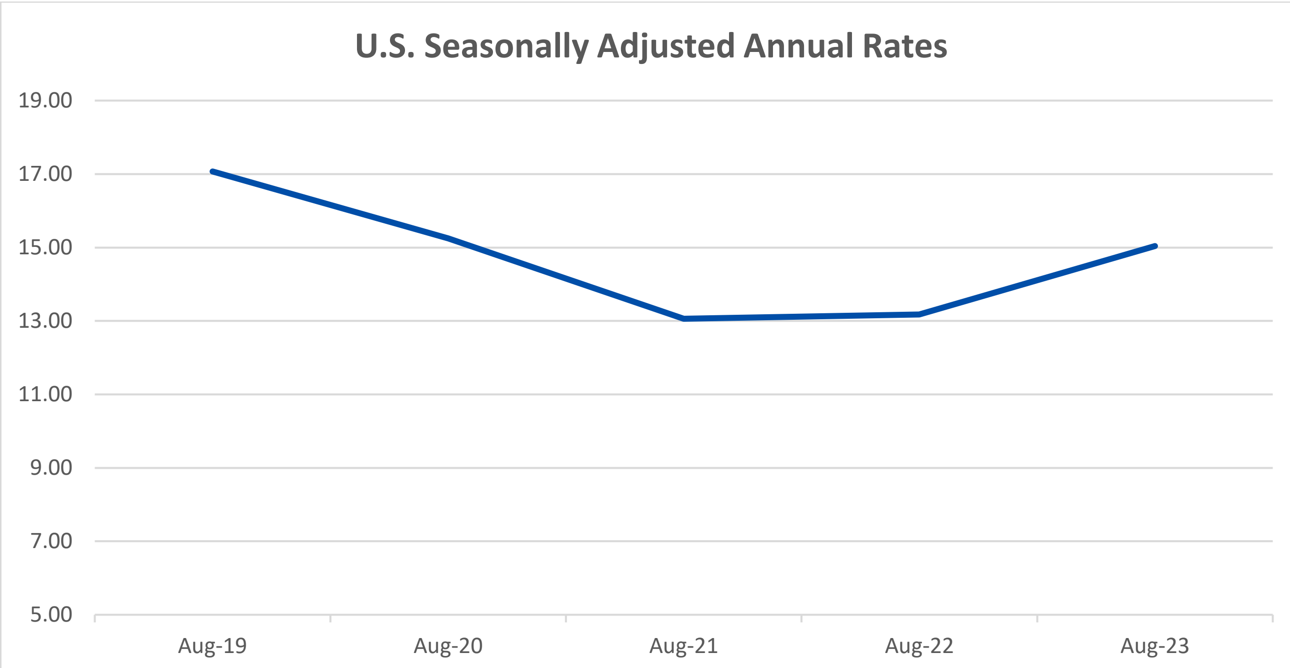
EV Powertrain Sales (Updated 9/7)

Sales of electric vehicles (BEV, PHEV, & Fuel Cell) accounted for 9.5 percent of total vehicle sales in August 2023 (126,599) – the highest monthly market share and volume to date, per Wards estimates. Market share increased 0.27 percentage points from July 2023. July's EV market share is up 3.25 pp from a year ago. Sales of battery electric vehicles led the way for EVs, accounting for 7.5 percent of total sales, up 2.4 pp from August 2022. Plug-in hybrids accounted for 2 percent, up 0.9 pp from the same time last year.[12]



Seasonally Adjusted Annual Rates (Updated 9/7)

WardsIntelligence[13]: “August sales equated to a 15.0 million-unit seasonally adjusted annual rate, down from the forecast of 15.3 million, July’s 15.7 million and lowest since 14.9 million in March. It was well above like-2022’s 13.2 million and the highest for the month in three years.”



Average Transaction Price (Updated 9/7)

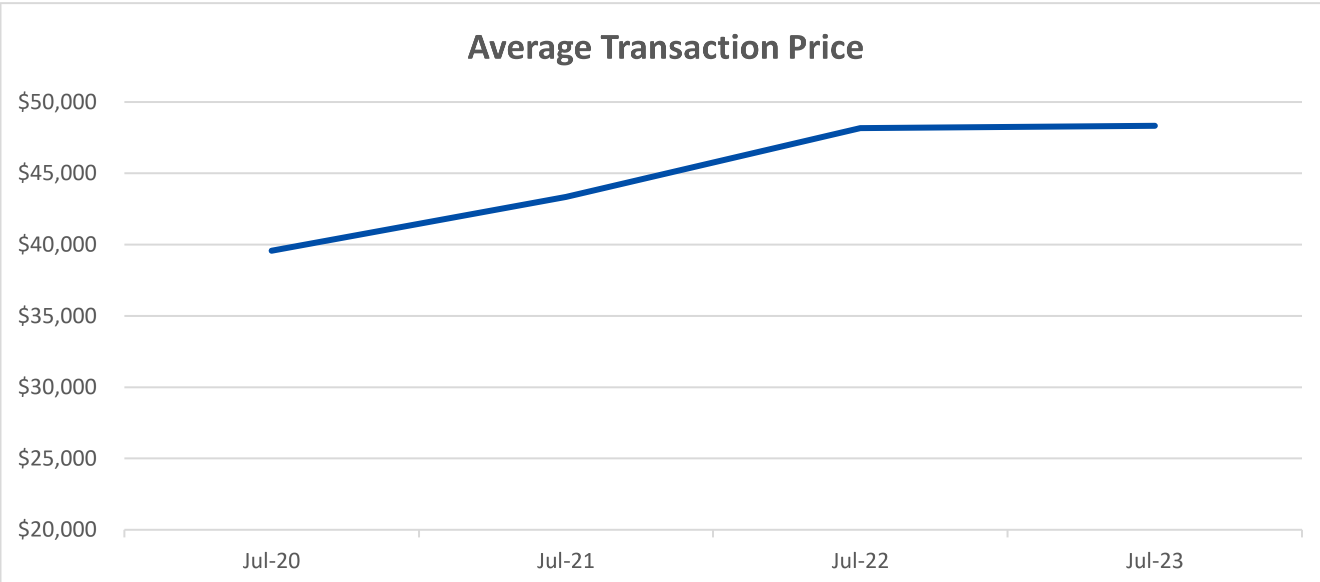
J.D. Power (Updated 9/7) [14]**:** "As sales volumes improve, the average new-vehicle retail transaction price is declining modestly, trending down $566 or 1.2% from August 2022, to $45,537. The decline mostly is due to an increase in sales of smaller vehicle segments that have inherently lower transaction prices."

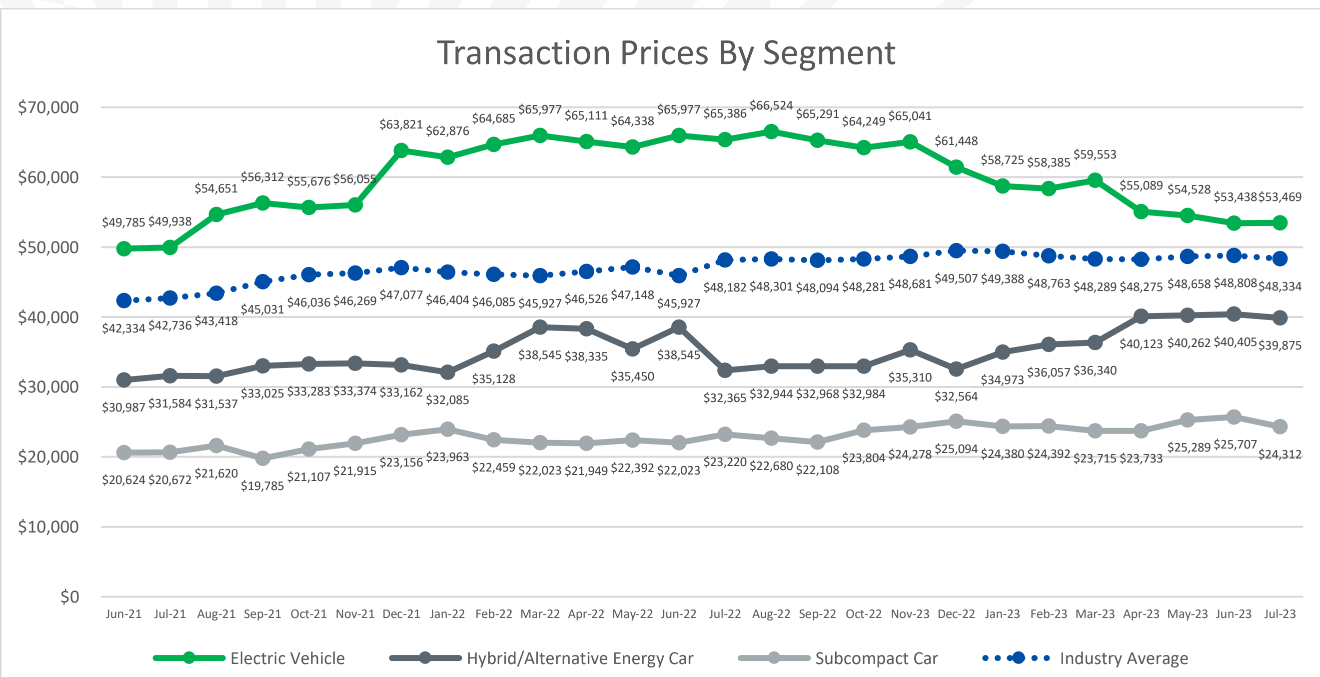
Kelley Blue Book (June) (Updated 8/24) [15]**:** "The average price Americans paid for a new vehicle in July 2023 was 0.4% higher than one year ago, the smallest year-over-year price increase in the last decade. According to Kelley Blue Book, a Cox Automotive company, the average transaction price (ATP) of a new vehicle in July was $48,334, a month-over-month decrease of 0.7% ($337) from June's ATP of $48,671, and up only $199 from one year ago. Compared to the start of the year, transaction prices are down 2.7%, or $1,335, the largest January to July tumble in the past decade.

"Auto manufacturers' incentive spend increased for the tenth consecutive month in July to the highest level since October 2021, averaging $2,148, or 4.4% of the average transaction price. One year ago, average incentive spending was 2.4% of ATP.

"EV prices continue to fall, once again led by market leader Tesla. In July, the average EV ATP was $53,469, down from $53,682 in June and down from more than $61,000 in January. Incentives for EVs in July were 6.7% of ATP, or $3,755. EV ATPs are down more than 19% from their recent peak of more than $66,000 just a little more than a year ago in June 2022. The price declines in the EV segment have mirrored the inventory increases experienced by some automakers. At the end of July, the EV segment days' supply was near 100 days, while industry days' supply stood at 54. (Cox Automotive days' supply calculations include vehicles in dealer inventory and in-transit/pipeline units but do not include Tesla).

"The year-over-year decline of EV ATPs has been led by Tesla slashing prices on its popular models," added Rydzewski. "Tesla prices are down nearly 20% versus a year ago, and other EV models, such as the Ford F-150 Lightning, have been following Tesla's lead. While automakers report losing money on electric vehicles, they continue to aggressively pursue EV growth strategies.""



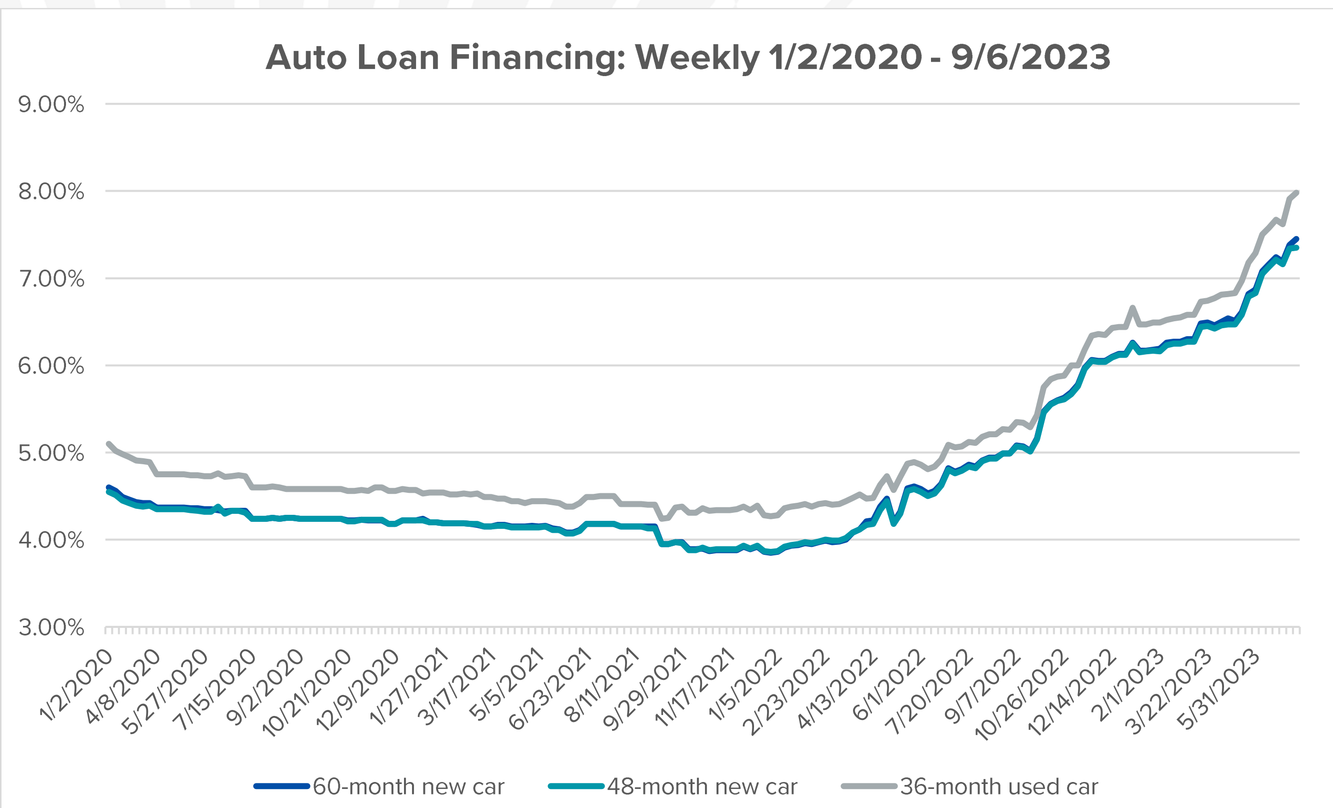


Auto Loan Financing (Updated 9/7)

Interest Rates (updated 9/7): Interest rates continued their steady increase on the 60-month, 48-month and 36-month used car loans. Rates now stand at 7.45%, 7.35%, and 7.98%, respectively. Since the beginning of 2020, 60-month rates are up 2.85 pp, and are up 2.37 pp since the same time a year ago.[16]

JD Power (9/7)[17]: "The average monthly finance payment in August is on pace to be $729, up $19 from August 2022. That translates to a 2.7% increase in monthly payments from a year ago. The average interest rate for new-vehicle loans is expected to be 7.3%, an increase of 182 basis points from a year ago."

Dates	60-month new car	48-month new car	36-month used car
1/2/2020	4.60%	4.55%	5.10%
9/7/2022	5.08%	5.07%	5.35%
8/16/2023	7.38%	7.34%	7.91%
9/6/2023	7.45%	7.35%	7.98%
Two Week Change	0.07%	0.01%	0.07%
Change since 1/3/20	2.85%	2.80%	2.88%
One Year Change	2.37%	2.28%	2.63%



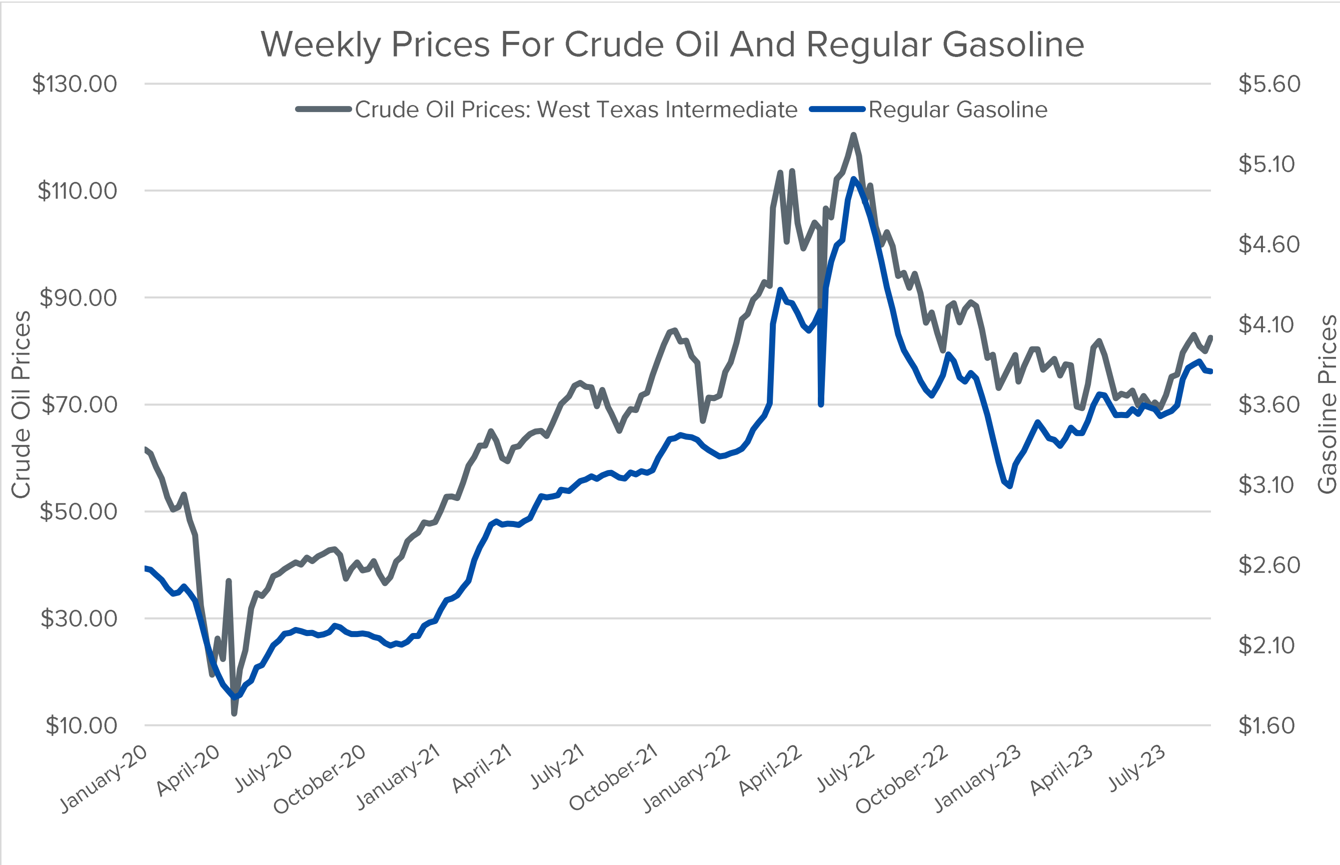
Crude Oil and Gas Prices (Updated 9/7)

EIA Outlook For Oil (8/24)[18]: "In our August STEO, we now expect total U.S. crude oil production to average 12.8 million barrels per day (b/d) in 2023, an annual average increase of about 0.2 million b/d compared with our July STEO. Our higher production outlook reflects the effect of higher well productivity in recent historical data from the Petroleum Supply Monthly, which we have extended into our current forecast for July and forward through 2023. Our outlook for higher crude oil prices, beginning in July 2023 and continuing into 2024, supports higher production in 2024 because of the lagged effect of prices on rig additions and production."

EIA Outlook For Gasoline (8/24)[19]: "In our August STEO, we expect lower gasoline production to reduce inventories and increase gasoline prices and crack spreads (the difference in price between a gallon of gasoline and a gallon of crude oil) in 2H23 compared with the July STEO. Previously, we assumed high crack spreads and more U.S. refining capacity in 2023 would contribute to rising gasoline production and inventory builds. However, a series of unplanned refinery outages this summer have limited increased refinery operations. Among the outages, a reformer outage occurred at Marathon's Galveston Bay refinery, and fluid catalytic cracking unit outages occurred at Phillips 66's Bayway refinery and ExxonMobil's Baton Rouge refinery. Many of the outages affected secondary conversion units, reducing the relative yields of gasoline from those facilities. We decreased our outlook for refinery utilization and refinery gasoline yield for the rest of the summer and the start of fall, which reduces our forecast of gasoline production. Lower gasoline production and lower net imports of gasoline contribute to lower total gasoline inventories in our forecast, which we now expect to remain near the five-year (2018–2022) low through the end of our forecast.

"In the August STEO, we estimate that persistent low gasoline inventories through the forecast period will contribute to higher gasoline crack spreads compared with last month's forecast. The annual average gasoline crack spread averages $0.73 dollars per gallon (gal) in 2023, compared with $0.63/gal in the July STEO. The increasing crack spread and higher crude oil prices both contribute to higher overall retail gasoline prices in this month's forecast as well. We now estimate 2023 U.S. retail gasoline prices to average $3.56/gal in 2023 and $3.45/gal in 2024.

Gas And Oil Creeping Up (9/7): Oil prices, as benchmarked at West Texas Intermediate increased $2.53 to $812.50 a barrel. Since election day 2020, oil prices are $46 a barrel higher. Gas prices are down $.06 from two weeks prior to $3.81. Gas is 48% higher than the beginning of 2020.[20]



Production Meter

U.S. Light Vehicle Inventory and Days' Supply (Updated 9/7)

WardsIntelligence Inventory Update (9/7)[21]: "As expected, inventory rose from July, after undergoing a typical seasonal decline from June, ending August at 1.926 million units, 52.1% above like-2022, and the highest for any month since April 2021's 1.973 million.

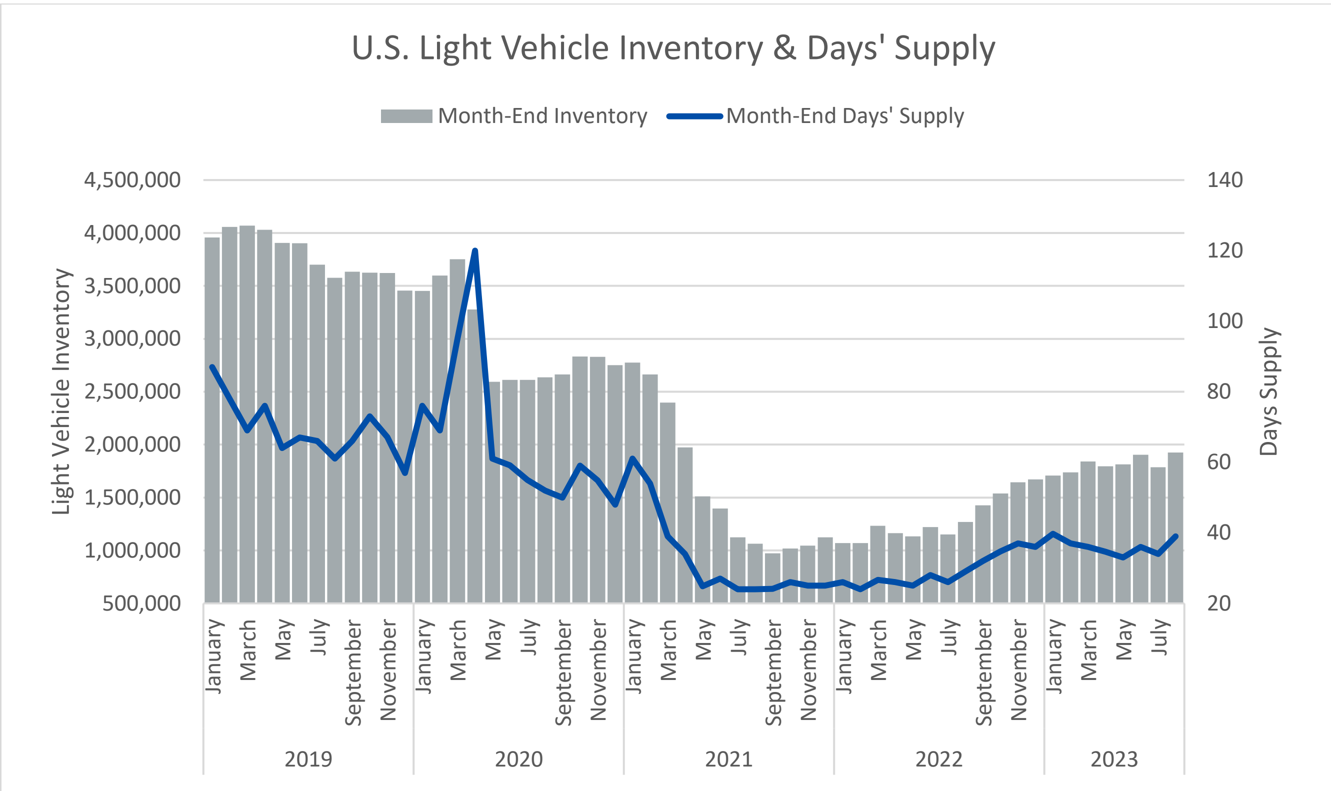
"Aug. 31 days' supply rose to 39 from the prior month's 24 and like-2022's 29. The total is well below the 64 days' supply averaged in the five years through 2019, the year prior to the onset of the pandemic two years before the beginning of the chip shortage in 2021.

"The mix of more affordable vehicles – mainly non-luxury small and midsize cars and CUVs - continues to slowly increase. The Aug. 31 inventory share of those vehicles increased year-over-year for the fourth consecutive month, totaling 36.2% vs like-2022's 35.3%. Prior to May, the inventory mix for affordable vehicles had declined 24 straight months.

"Sales market-share for those vehicles also has risen four straight months, totaling 46.1% in August, up from same-month-2022's 45.6%.

"Breaking down the affordable-vehicle sector further, sales in entry-level segments – small cars and CUVs – jumped to 17.4% of the market in August from like-2022's 15.7%.

"With the industry heading toward Q4, usually the strongest quarter in most years for fullsize trucks, inventory of large CUVs, pickups, SUVs and vans – including luxury makes – stood at 714,685 units, 47.0% above August 2022. Inventory of fullsize pickups, which make up the majority of large-truck stocks, and have seen demand somewhat weaken in recent months, totaled 463,518 units, 58.4% above same-month 2022."



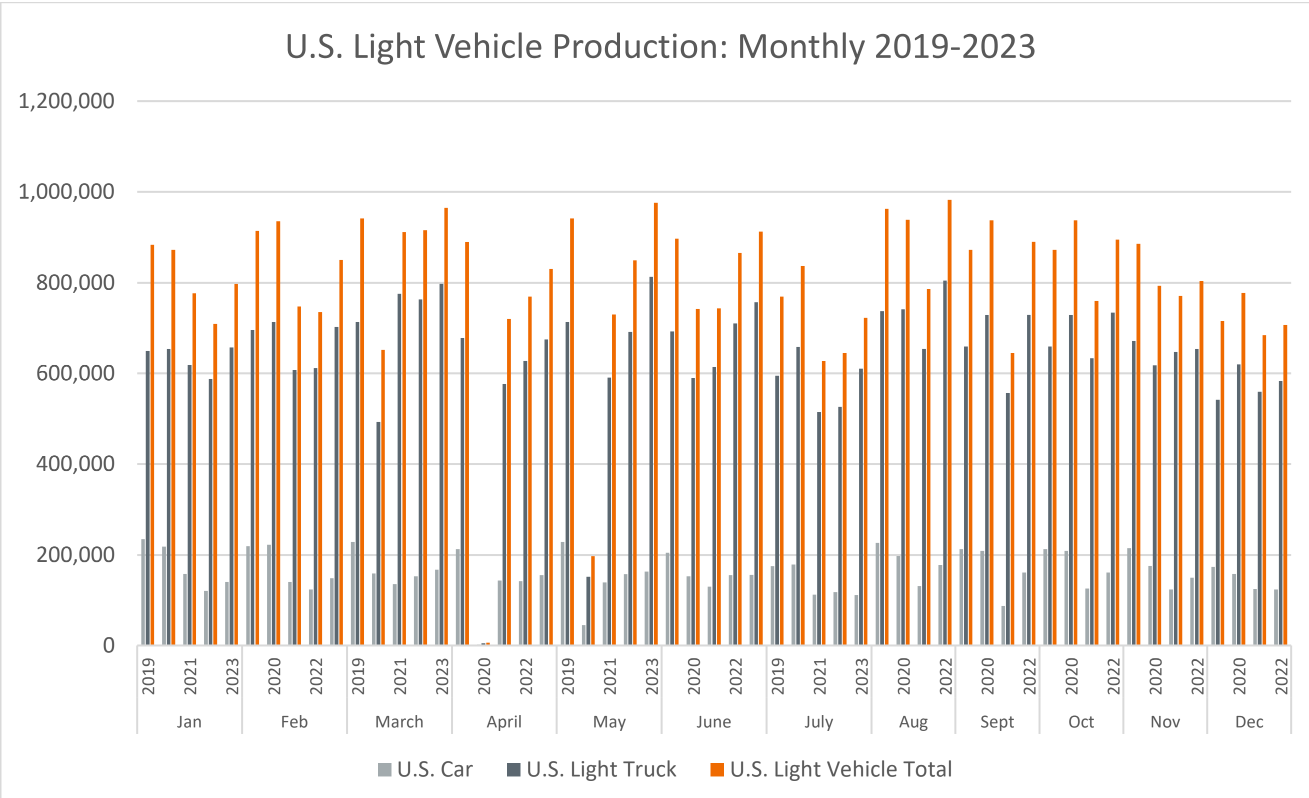
North American Production (Updated 8/24)

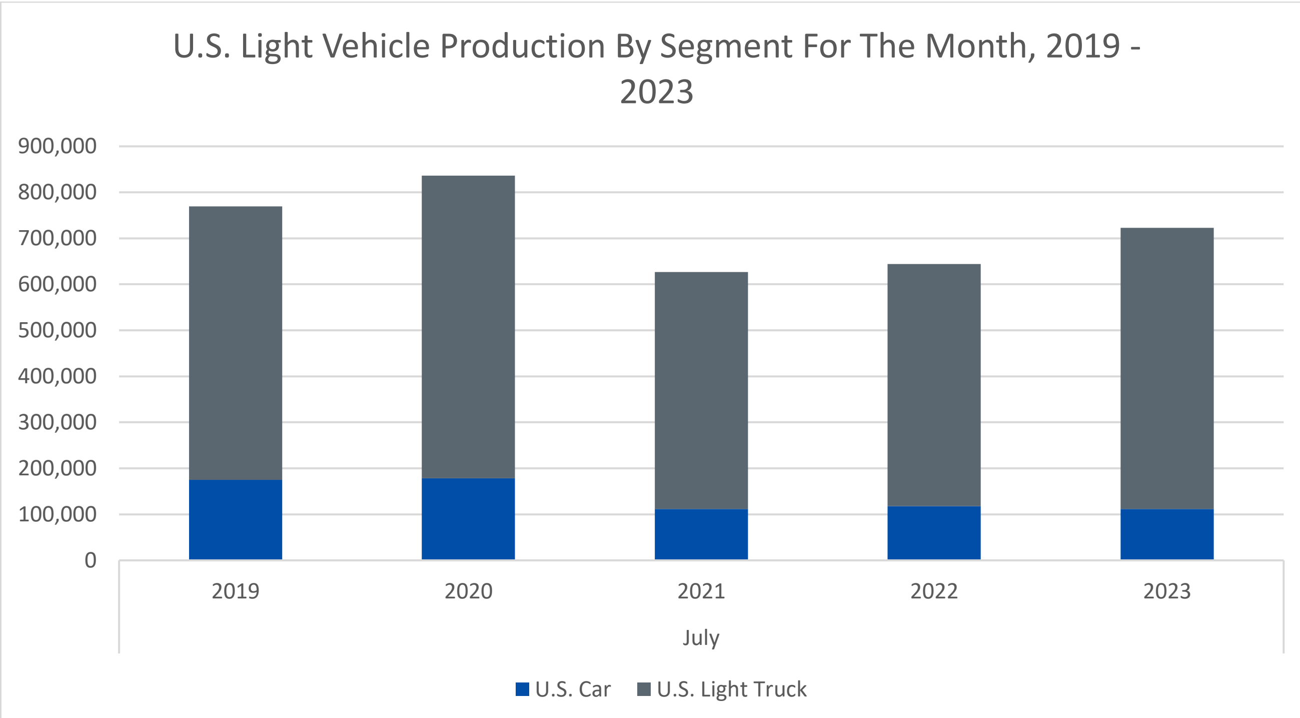
Wards Intelligence[22]: "Several automakers recorded overbuilds in July, with the biggest surpluses at Volkswagen, Nissan and Ford, more than offset shortfalls at General Motors and Tesla, which is estimated. Excluding medium-/heavy-duty trucks, July light-vehicle production totaled 1.13 million units, 15.7% above same-month 2022. Production, however, still has not returned to pre-pandemic levels, as July's total was 4.6% below same-month 2019's 1.18 million units."

U.S. Light Vehicle Production (Updated 8/24)

Monthly Production (Upodated 8/24)

U.S. Light vehicle production for July 2023 decreased month-over-month by 21 percent, totaling 747,727 vehicles (111,683 cars, 610,845 light trucks), year-over-year, production is up 12 percent from 2022. [23]





Global Meter

Global Light Vehicle Sales (Updated 9/7)

Wards Intelligence[24]**:** "Global vehicle sales started second-half 2023 with solid growth as combined volume of light vehicles and medium-/heavy-duty trucks in July rose 7.7% above the same year-ago month to 7.52 million units.

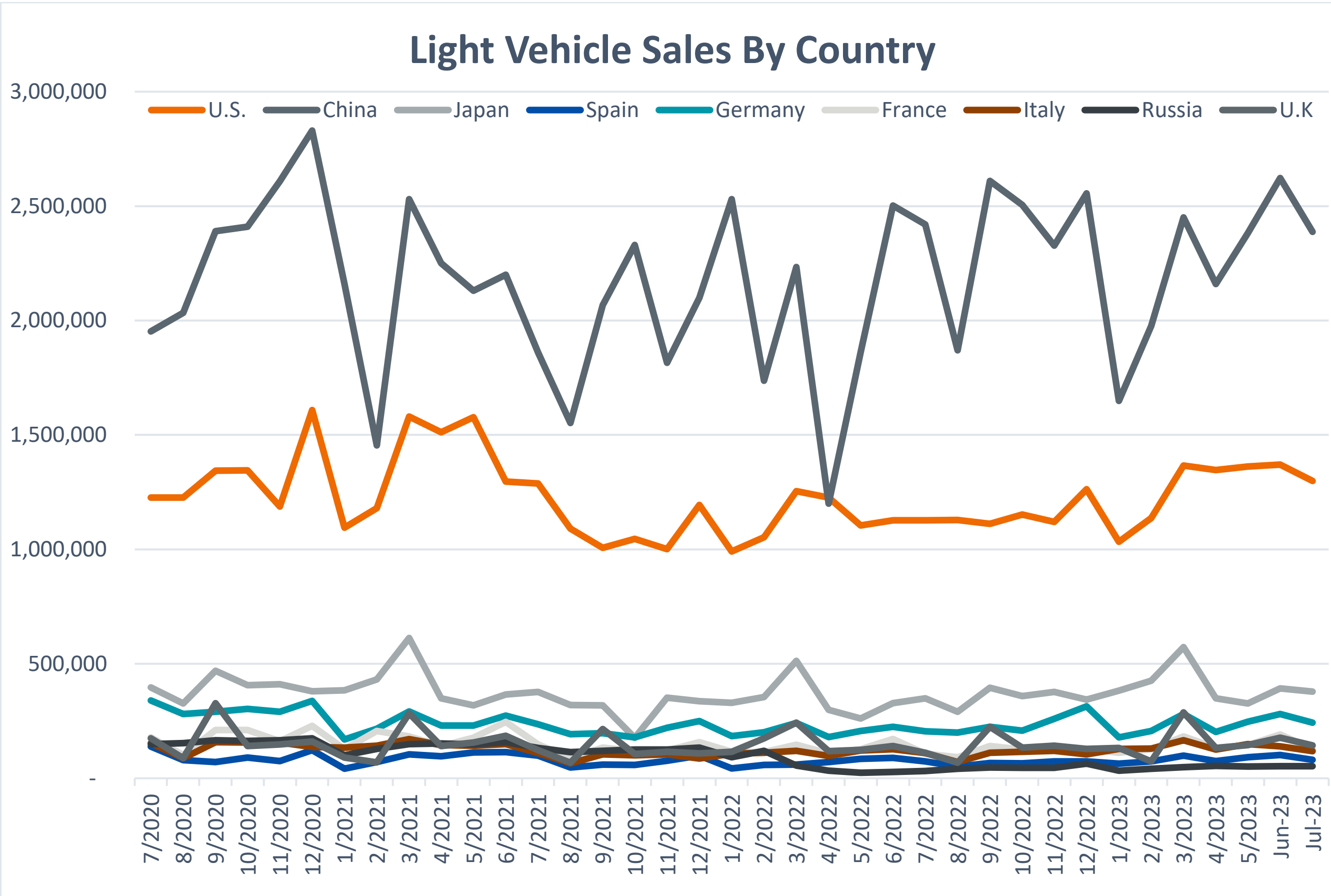
"The gain was slightly below the first-half 2023 year-over-year increase of 11.2% but not necessarily indicative of widespread weakening in all global regions, though China, the biggest global market, recorded its first decline since January.

"China volume of 2.45 million units in July was down 1.9% from like-2022. Through the first six months of 2023, year-over-year sales increased 9.4%, but July's results lowered the year-to-date comparison to an increase of 7.5%.

"Less China, which accounts for roughly one-third of global vehicle sales, the rest of the world was up 13.1% year-over-year in July. In fact, all other major regions recorded gains in July, including South America, with its first year-over-year increase in four months.

"However, while volume is showing solid strength in the rest of the world, with China in a period of greater economic uncertainty, global growth could continue to weaken in the short term compared with the double-digit growth in first-half 2023.

"If weakness continues in China through the end of the year, it could be somewhat masked in the fourth quarter because deliveries took a temporary dive in November and December of last year due to a resurgence in Covid-19 cases, which caused government-mandated lockdowns – since rescinded – to kick in. Thus, if demand continues to weaken in China, year-over-year comparisons at face value might still look healthy despite underlying softness."



Global Light Vehicle Production (Updated 8/24)

S&P Global Mobility Forecast (8/24)[25]: "Light vehicle production continues a general theme of stronger performance in the immediate near-term as production in several regions ramps up further and inventory restocking accelerates. Further, as pent-up demand is being released, some vehicle manufacturers are still dealing with somewhat tight inventory levels further supporting the near-term production outlook. We remain focused on the state of consumer demand given elevated vehicle pricing and still challenging credit conditions; however, consumers remain fairly well-engaged in the light vehicle market. Looking beyond 2023, the general production outlook shifts toward a more traditional demand-driven model with inventory equilibrium achieved in several markets. The August 2023 forecast update reflects some noteworthy upgrades in the near-term, particularly for Japan/Korea and Europe on continued production recovery supporting demand, as well as inventory backfill, and Greater China given ongoing strength in export activity.

The acceleration in inventory restocking supported by strengthening output in the near-term results in a production profile that more closely aligns with and is driven by demand expectations starting in 2024 and beyond. The more noteworthy regional adjustments with the latest forecast update are detailed below:

"Europe: The outlook for Europe light vehicle production was increased by 102,000 units and by 94,000 units for 2023 and 2024, respectively (and increased by 57,000 units for 2025). The August update for Europe continues to show upward pressure on short-term builds amidst somewhat muted demand and growing competition from imported cars. The sales backlog will play a crucial role in production for the second half of 2023, with expectations of a quicker fade than initially anticipated. This, in turn, is projected to completely resolve vehicle availability issues by the end of the year. Looking ahead, production for 2024 is anticipated to turn negative compared to 2023, in line with expected growth in vehicle inventories. Compared to the prior month forecast, the evaluation of H1-2023 has been adjusted upward by 72,000 units based on stronger actual production results, marking a 17% increase over H1-2022. The projections for H2 2023 have been augmented by 30,000 units, representing a 5% increase in comparison to H2-2022. The outlook through the intermediate-term has been further upgraded due to the transfer of some production of the Volkswagen Polo from Africa to Europe, along with the introduction of several new vehicle models in select Commonwealth of Independent States (CIS) countries.

"Greater China: The outlook for Greater China light vehicle production was increased by 76,000 units and reduced by 38,000 for 2023 and 2024, respectively (and reduced by 34,000 units for 2025). Robust export activity continues to be a strong driver of light vehicle production growth in the region. In addition, further momentum continues to be provided by compelling New Energy Vehicle (NEV) activity. In H1-2023, the NEV market penetration rate exceeded 35%, helping Chinese domestic brands continue to make noteworthy market share gains. Of note, we continue to reflect a more measured outlook for NEV activity in Q4-2023 given the recent NEV tax policy extension to beyond 2023 which is expected to mitigate any meaningful pull-ahead effect to NEV sales at year end. Given the risk of slowing economic growth, local currency depreciation and private demand destruction, the production outlook for 2024 and 2025 has been modestly downgraded, yet still represents a post-COVID rebound of 5.3% for both years.

"Japan/Korea: Full-year 2023 Japan production was increased by 101,000 units. Toyota continues to outperform and is the main driver for the increase as the company satisfies pent-up demand with semiconductor shortage issues continuing to improve. Further, in the intermediate-term, the end of production for the current Suzuki Swift was extended to 2025 and will run concurrently with the redesigned model. There were no major changes with the longer-term forecast. Full-year 2023 South Korea production was increased by 31,000 units relative to the previous forecast as strong export activity continues to support production. Production in 2024 and 2025 was increased by 9,000 units and 24,000 units, respectively, primarily due to vehicle timing adjustments for the Samsung QM6 and the Kia EV5, among others. In the longer-term, there were no significant changes other than small volume fluctuations due to the timing change for the Kia EV5.

"North America: The outlook for North America light vehicle production was reduced by 8,000 units and increased by 6,000 units for 2023 and 2024, respectively (and reduced by 2,000 units for 2025). The greatest threat to the forecast in the near-term surrounds the union negotiations between the United Auto Workers (UAW) in the US and Unifor in Canada with their respective contracts set to expire in mid-September 2023. Hard line stances from union leadership along with strong demands create a high likelihood that a strike will occur. Minimum estimates are for two weeks of a select manufacturer, GM, Ford or Stellantis, with the potential for it to be drawn out to as long as 10 weeks with scenarios ranging from 100,000 to as much as 600,000 units or more of lost output. While the latest forecast does not include a strike scenario, there is in effect a built-in hedge totaling around 545,000 units since the Detroit-based manufacturers have strong inventories. If a strike is averted, then as forecast, GM, Ford and Stellantis would likely need to curb output plans. Over the forecast horizon, the outlook remains somewhat muted given expectations for an industry inventory profile that continues to focus on quality volume at the expense of costly volume behaviors. This new normal is based on continued commitments bolstering transaction prices and supported by manufacturer plans to grow build-to-order programs, especially for new BEV entrants.

"South America: The outlook for South America light vehicle production was reduced by 8,000 units and increased by 14,000 units for 2023 and 2024, respectively (and increased by 17,000 units for 2025). The rather small near-term forecast downgrade was focused on Brazil and Argentina and reflected lower production actuals posted recently. Our general production outlook continues to reflect an earlier return to inventory normalization and consequently is more reliant on demand fundamentals going forward. The production upgrades for 2024 and 2025, while fairly modest in nature, were due primarily to vehicle timing changes with the end of production for the Renault Logan and Sandero delayed by two quarters and the start of production for the Honda WR-V pulled ahead by several quarters, among other timing shifts.

"South Asia: The outlook for South Asia light vehicle production was increased by 5,000 units and reduced by 9,000 units for 2023 and 2024, respectively (and increased by 4,000 units for 2025). There were only fairly minor overall revisions to production for the South Asia region with the August 2023 forecast update, yet, there were some relevant country-specific adjustments. In the near-term, India production has produced somewhat stronger results on backlog order fulfillment and new vehicle launch activity. This is only partially offset by lingering weakness in Pakistan due to deteriorating economic conditions and other exogenous factors. With regard to the ASEAN market, recent weakness in production for Vietnam given economic headwinds and weaker export activity is offset by stronger production performance for Thailand and Indonesia. Production for Thailand and Indonesia is supported by the need to satisfy outstanding orders as well as fairly strong export momentum."

Recovery Meter

Roadway Travel (Updated 8/24)

According to the U.S. Department of Transportation, seasonally-adjusted vehicle miles traveled in June increased 3.1 percent from the same time a year ago. The cumulative travel estimate for 2023 is 1,578.9 billion vehicle miles.[26]

- Travel on all roads and streets changed by +3.1% (+8.4 billion vehicle miles) for June 2023 as compared with June 2022. Travel for the month is estimated to be 283.0 billion vehicle miles.
- The seasonally adjusted vehicle miles traveled for June 2023 is 268.9 billion miles, a 2.8% (7.4 billion vehicle miles) change over June 2022. It also represents a -0.2% change (-0.4 billion vehicle miles) compared with May 2023.
- Cumulative Travel for 2023 changed by +2.3% (+35.1 billion vehicle miles). The cumulative estimate for the year is 1,578.9 billion vehicle miles of travel.

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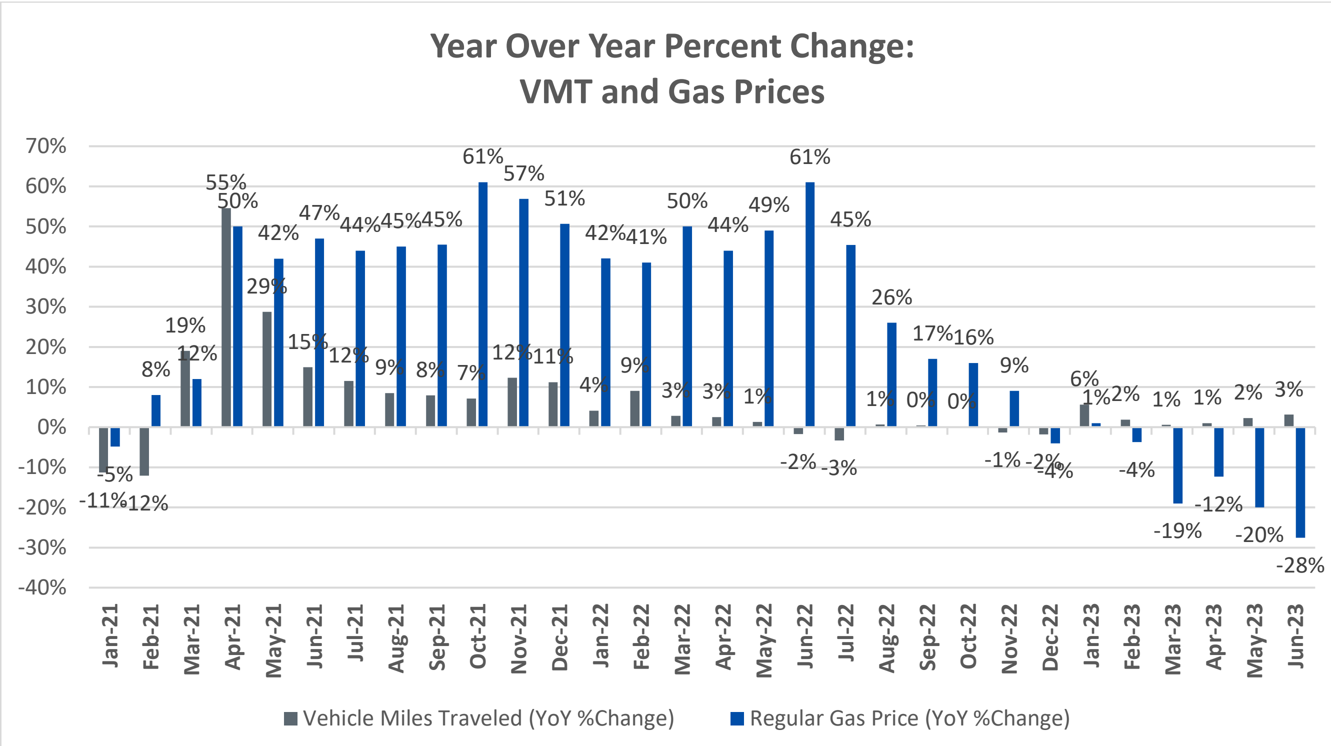


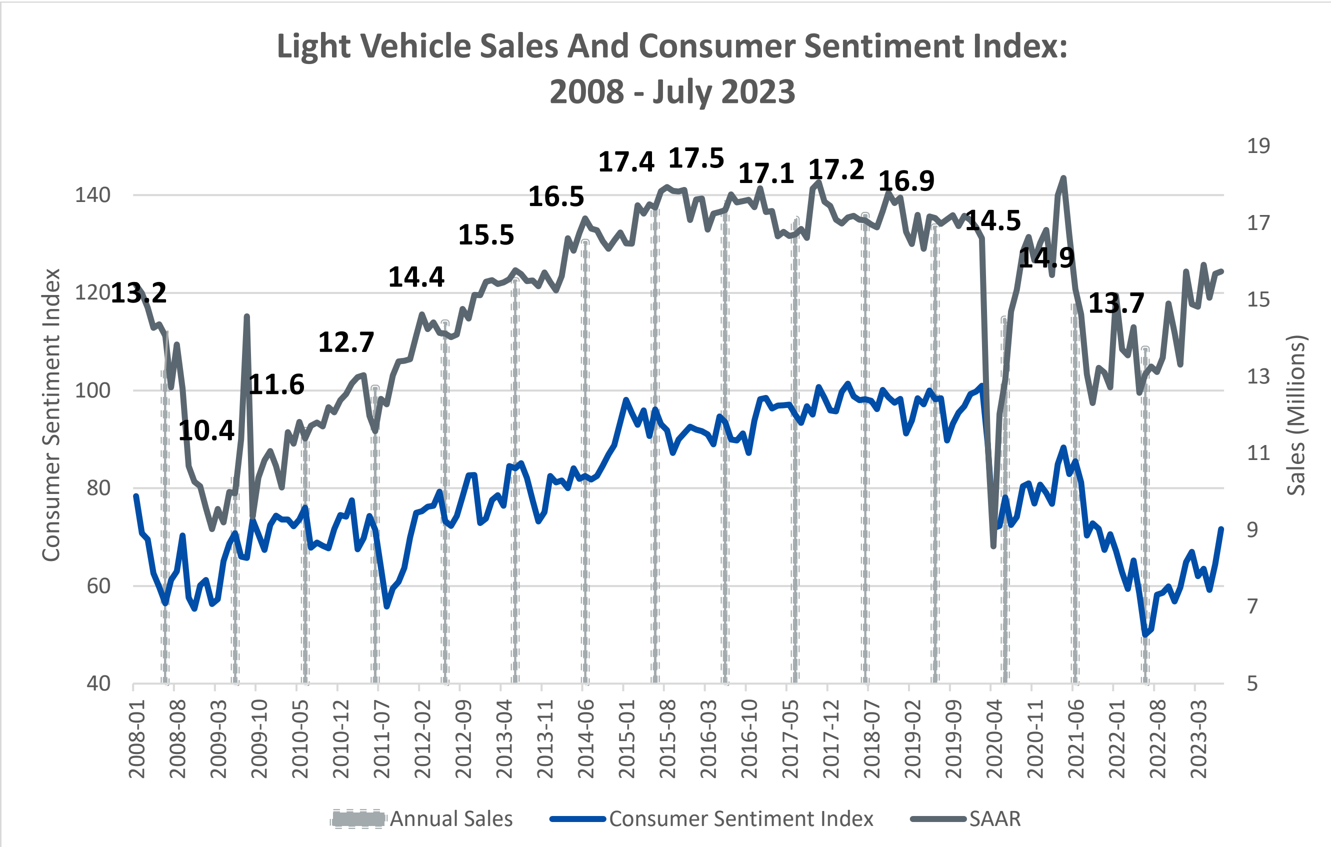
Economic News (Updated 8/24)

The ISM Index Slips To 46 Percent In July – Ninth Consecutive Month of Contraction. "The latest Manufacturing ISM Report On Business for July 2023 reveals that economic activity in the manufacturing sector has continued to contract for the ninth consecutive month. This decline follows a 28-month period of growth, signifying a challenging time for the nation's supply executives. The Manufacturing PMI for July registered at 46.4%, a slight improvement from June's 46%."[27]

Consumer Confidence and Sales (Updated 8/24)

Surveys of Consumers Director Joanne Hsu[28]: "Consumer sentiment was essentially unchanged from July, with small offsetting increases and decreases within the index. At 71.2 index points, sentiment is now about 42% above the all-time historic low reached in June of 2022 and is approaching the historical average reading of 86. In general, consumers perceived few material differences in the economic environment from last month, but they saw substantial improvements relative to just three months ago.

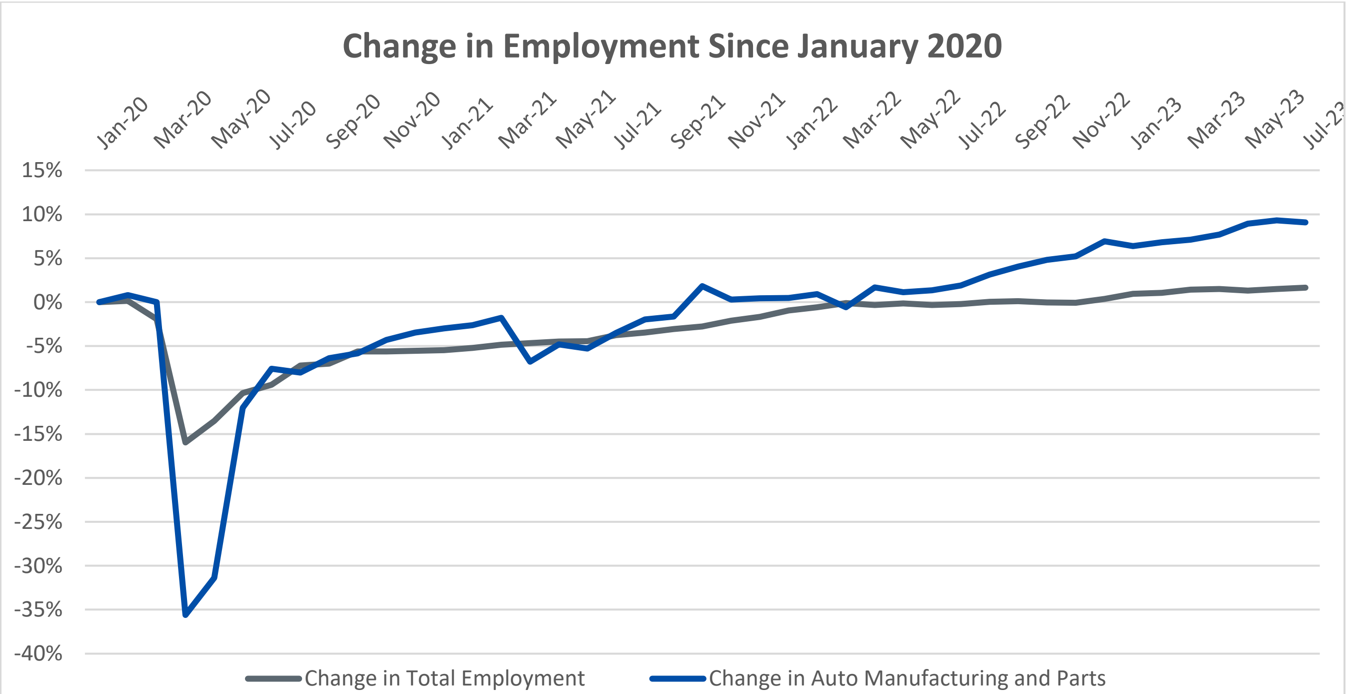
Year-ahead inflation expectations edged down from 3.4% last month to 3.3% this month, showing remarkable stability for three consecutive months. The current reading remains above the 2.3-3.0% range seen in the two years prior to the pandemic. Long-run inflation expectations also remained stable at 2.9%, again staying within the narrow 2.9-3.1% range for 24 of the last 25 months. These expectations are elevated relative to the 2.2-2.6% range seen in the two years pre-pandemic."



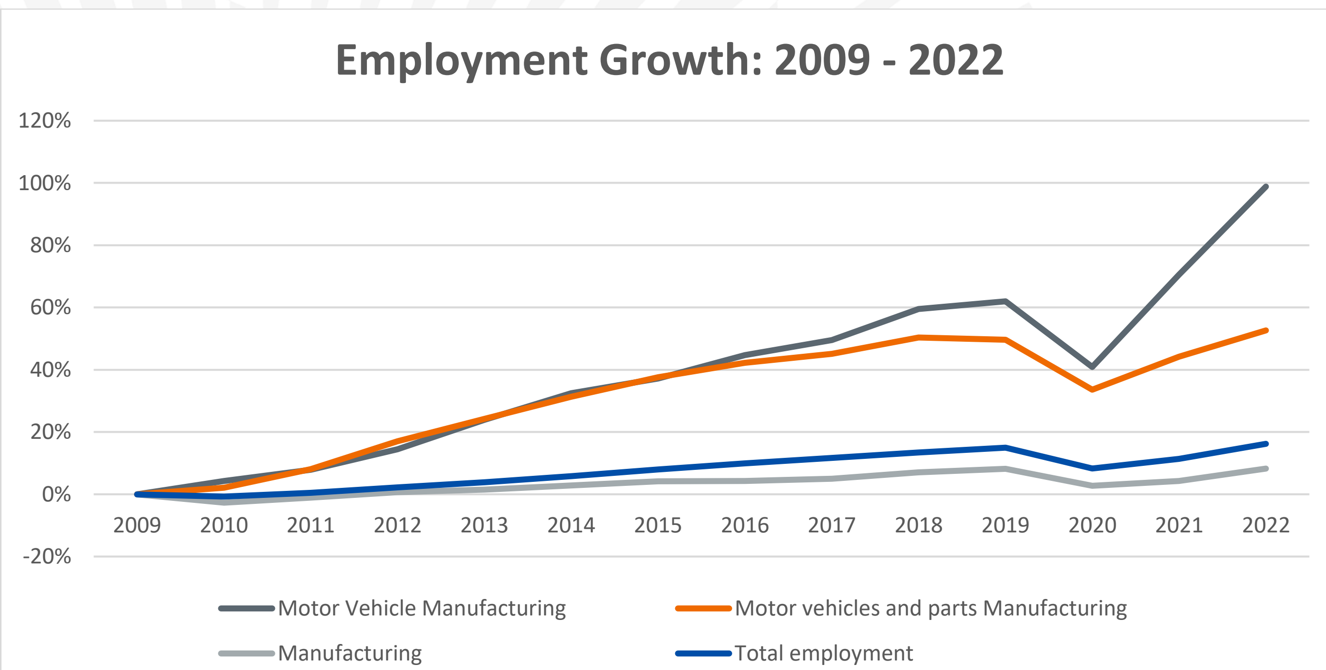
Employment (Updated 8/24)

Motor Vehicle And Parts Manufacturing Lost 2,200 Jobs In July.

After a loss of nearly 350,000 employees (about 35% of the workforce) in the height of the pandemic, employment in the Automobile Manufacturing and Parts sectors raced back but is now fighting losses due to supply chain disruptions with semiconductors.[29]



After the recession in 2009, the auto industry was credited with being on the leading edge of the recovery, which began a ripple effect through other parts of the country.[30] Additionally, the chart below shows how the recovery of jobs in motor vehicle manufacturing alone and motor vehicle and parts manufacturing far outpaced the recovery of manufacturing and total jobs.



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